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work done, and we think such lien when the work was completed and the statement of claim filed was superior to the lien of the mortgage.

Our conclusion is that the whole judgment should be

Affirmed.

AMERICAN ROAD MACHINE COMPANY *v.* PEN-
NOCK AND SHARP COMPANY.

APPEAL FROM THE CIRCUIT COURT OF THE UNITED STATES FOR
THE EASTERN DISTRICT OF PENNSYLVANIA.

No. 27. Argued March 30, 31, 1896. — Decided October 19, 1896.

Letters patent No. 331,920, issued to George W. Taft, December 8, 1885, for a machine for making, repairing and cleaning roads, are void, if not for anticipation, for want of invention in the patented machine.

IN equity. Decree dismissing the bill. Plaintiffs appealed. The case is stated in the opinion.

Mr. Frederick P. Fish for appellant. *Mr. W. K. Richardson* was on his brief.

Mr. L. L. Bond for appellees. *Mr. A. H. Adams*, *Mr. C. E. Pickard* and *Mr. J. L. Jackson* were on his brief.

MR. CHIEF JUSTICE FULLER delivered the opinion of the court.

This was a bill for infringement of claims four, ten, eleven and thirteen of letters patent No. 331,920, issued to George W. Taft, December 8, 1885, for a "machine for making, repairing and cleaning roads."

The defences were want of patentable novelty; anticipation; and non-infringement. On hearing, the Circuit Court, held by Judge Butler, entered a decree dismissing the bill. 45 Fed. Rep. 252.

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The application was filed May 6, 1885, and the specification declared —

“The objects of my present invention are to provide an efficient and convenient ‘stiff-angled’ or non-reversible road-machine in which the ends of the blade are positively sustained against the working strain, while permitted vertical adjustment by means of push-bars extending from the rear of the machine to the back of the blade; also, to provide in a non-reversible road-machine a vertically-swinging thrust-frame and push-bar arrangement that will permit the required adjustments of the scraper in relation to the plane of the road; also, to provide in a road-machine a hand-wheel operating device for imparting motion to the blade-elevating mechanism, whereby the respective ends of the blade can be raised and depressed in a quick, easy, and convenient manner; also, to provide an improved lifting mechanism for elevating and depressing the blade; also, to afford facilities in a road-machine, in connection with the hand-wheel operating devices, of a brake or stop device for retaining the hand-wheel, lifting mechanism, and blade at position of adjustment.”

Then followed the drawings and the description, omitting a part of which, the specification thus continued:

“The front end of the blade D is suspended by a bar or link G from the arm of a lever H that is arranged along the side of the machine and fulcrumed at *h* on a support A³ that projects from the carriage frame. The rear arm of said lever is provided with a gear segment H¹ that meshes with an actuating pinion I, by which the arm of the lever may be moved up and down for raising and depressing the front end of the lever and blade. The rear end of the blade is connected by a link G¹ to a vertically sliding rack J that meshes with an actuating pinion I¹ and is guided by a flanged friction roll K pivoted on a suitable bracket or support connected to the carriage frame A. The pinion I that operates the lever H may be provided with flanges *i i*¹ for embracing the sides of the internally toothed segment H¹ and thus serving to guide and retain said segment and its lever H in proper relation therewith as it is moved up and down by the rotation of the hand-wheel M.

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The rack J and its guide-roll K are *preferably* fitted to each other by intermatching grooved and flanged surfaces, as indicated in Figs. 3 and 3 and the operating pinion I¹ is provided with flanges j to embrace the sides of the rack, so that said rack is confined and guided in proper relations as it slides up and down and works with but little friction or resistance when adjusting the blade.

“Hand-wheels M and M¹ are provided for imparting motion to the respective pinions I I¹, or operating gear of the blade-lifting mechanism, when elevating and depressing the blade or adjusting the blade to differently inclined positions in relation to the plane of the road, these wheels may be made some three feet in diameter, more or less, with round or other formed rims that can be conveniently grasped by the hand at any part of their periphery. In the present instance the hand-wheels and their pinions are respectively attached to each other or formed on the same hub; they are mounted on a shaft L that extends across the carriage A, and is supported in bearings on suitable standards l l¹. One of the wheels (M, or M¹) is arranged to turn loose on shaft L, so that the two wheels can be revolved independently of each other for separately adjusting either end of the blade required. The rims of the hand-wheels are made sufficiently heavy to act as a balance against the weight of the blade-lifting devices, so that the momentum of the wheel will greatly assist the operator in the manipulation of the machine. Short shafts or studs may be used in lieu of shaft L as journals for the hand-wheels and gears if desired. I prefer however to have the shaft extend across the machine as it makes a stronger and more rigid construction.

“Brake mechanism is arranged in connection with the carriage for stopping and retaining the hand-wheels to hold the blade at any position of adjustment. Said brake mechanism may be made, as indicated, with levers n, having one end fulcrumed beneath the platform at n', and the other provided with a pad or shoe, N, to press against the rim of the hand-wheel, a suitable spring, s, being connected therewith to give the required holding pressure. A foot piece or pedal, P, ar-

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ranged at a convenient position enables the attendant to depress the lever and brake-shoe by placing his foot thereon when he desires to throw off the brake for releasing the hand-wheel.

“In lieu of connecting the hand-wheel and blade-lifting bar or lever by means of a toothed pinion and rack, said parts may be connected by a strap or chain, (one or more,) one end whereof connects with the lift bar or lever, while the other end is arranged to wind onto the pinion or hub on the hand-wheel, or onto a sheave geared to the hand-wheel hub.

“The operation of this road-machine is obvious from the drawings and foregoing description. The operator, standing upon the platform A, when he desires to raise or depress either end of the blade, places his foot upon the brake-pedal P corresponding to the end to be adjusted, and grasping the rim of the wheel where it is most convenient to his hand, swings it backward or forward, (accordingly as required,) with a free and easy action, and to a greater or less extent, as desired, then releases the pedal and the brake or stop is automatically applied by its spring s.

“A hand-wheel, in combination with and for imparting motion to mechanism for elevating and depressing the scraper or blade in a road-machine, is of great practical utility and advantage, as it enables the operator to handle and control the machine with greater ease and facility than with a lever handle or crank, and does not necessitate his taking an awkward or constrained position at any part of the action. The rim of the wheel, acting by its momentum as a balance-wheel, also enables the operator by a quick movement to suddenly throw the blade completely up from the ground to avoid contact of large stones or other obstructions while the machine is in motion. Said rim also serves as a continuous seat for the stop or brake, so that the adjustment can be held with the blade at any degree of elevation desired.

“A hand-wheel *adapted to act by its peripheral momentum, or as a balance-wheel, for assisting or augmenting the throw or movement when adjusting the scraper*, in combination with the *scraper-blade and blade-adjusting mechanism*, for the purpose specified, is an important feature of my invention.

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“Hand-wheels may be employed for elevating and depressing the scraping-blade in a road-machine, in combination with connections or lifting devices of other construction and arrangement from those herein shown, with beneficial results, and I so intend to employ said hand-wheels; and I have in other applications (see serial Nos. 167,212 and 173,968) for letters patent described and claimed certain combinations in which other forms of lifting mechanism are employed for effecting the vertical adjustment of the blade.

“I am aware that a railroad snow-plow or track-clearer has heretofore been patented, in which the plow was braced from the car-axle by parallel braces rigidly connected to the plow; and that a swinging transverse scoop or shovel pivoted between the ends or rearwardly-extending braces of equal length, and in connection with a wheeled carriage, has also been shown in another patent. I am also aware that other patents exhibit road-scrapers wherein braces or links are shown which connect blade-supporting standards in rear of the blade, with one of the side bars of the carriage-frame. Such devices I do not therefore herein claim, as neither of them attain the results incident to my improvement—viz., perfect flexibility of adjustment with direct support or thrust under all conditions of use and positions of adjustment.”

[The foregoing words in italics were inserted by way of amendment, the disclaimer being preceded by the statement: “Regarding the 1st claim for recognition of the state of the art, insert at the end of the descriptive part of specification, page 9, the following clause, viz.”]

Of the fifteen claims, the first, fourth, fifth, tenth, eleventh and twelfth were:

“1. In a machine for grading and clearing roads, the combination, with a scraper-bar or blade suspended from the carriage between its front and rear wheels, of thrust-bars extending from the axle or rear of said carriage and attached to the back of said scraper near its ends by connecting-joints that permit upward and downward adjustment at each end of the scraper-blade independent of the other, substantially for the purpose set forth.”

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"4. In a road-grading machine, a hand-wheel in combination with the blade-elevating devices, for imparting motion to said devices, when raising and depressing the blade, substantially as hereinbefore set forth.

"5. In a machine for grading and cleaning roads, the combination, with the scraper-blade, supported by a push frame at the rear of said blade, and blade-elevating mechanism connected therewith, of a hand-wheel for imparting motion to said elevating mechanism for effecting the upward and downward adjustment of the blade, substantially as hereinbefore set forth."

"10. In a road-machine the standards L and shift L in combination with the carriage, blade-lifting devices, and operating wheels and pinions, as and for the purposes set forth.

"11. The flanged guide-roll K and flanged pinion L , in combination with the rack J , blade D and carriage frame A , and hand-wheel M , substantially as and for the purpose set forth.

"12. In combination with the blade-elevating lever H having the internally toothed segment H , of an operating pinion I , provided with flanges, i , for guiding said segment, substantially as set forth."

The application was examined by the Patent Office, and the following objections were made:

"If claim 1 is to stand, the state of the art as shown in patents 226,686, Sweatt, Apr. 20, 1880 (self-load'g carts); 52,028, Carncross, Jan. 16, 1866; 191,287, Jefferson, May 29, 1877, and 288,261, Raab, Nov. 13, 1883 (wheeled scrapers), must be recognized.

"Claim 4 is met in patent 220,812, Day, Oct. 21, 1879 (same). Furthermore the devices of patents 297,861, Smith, April 29, 1884; 275,614, Edwards & Durkee, April 10, 1883, and 135,475, Ham, Feb'y 4, 1873 (ex. carrier).

"As to claim 5, in view of the patents 160,535, McCall, Watkins, Scott, M'ch 9, 1875, and 296,138, Cook, Apr. 1, 1884 (wheeled scrapers), the claim does not present patentable novelty, these, with the patent of Day, showing that, broadly considered, a hand-wheel and a lever are equivalent substitutes.

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"Claims 10, 11 and 12 are met in patent of Cary, 152,072, June 16, 1874 (self-load'g carts).

"Patent 145,736, Humphreys, Dec. 23, 1873 (ex. carrier), may also be referred to as showing the state of the art in connection with claim 11.

"Claim 15 is met in patent of Carncross above cited."

Thereupon the specification was amended as before pointed out, and applicant further said:

"Regarding the fourth and fifth claims, in the references cited, patent No. 220,812, it is shown that a small hand-wheel mounted on a vertical shaft and adapted for winding up a rope or chain in manner similar to a car-brake has been used for bodily lifting a diagonal scraper or snow-plow on a railroad car, both ends of the scraper being lifted simultaneously; further, in other patents it is shown that wheels having a series of projecting handles or pins are employed in connection with means for lifting the plow and conveyer in ditching machines. Neither of these devices, it is thought, embody the features which applicant desires to secure, and while there is no question but that the present wording of said claim is met by these references, yet it is believed that applicant has a point to which these former inventions have not attained.

"The claims are hereafter amended with this feature in view, viz., that in applicant's invention the wheel is designed and adapted to be worked in combination with a diagonal blade and as a balance or momentum wheel, so that a quick throw of the wheel with the hand will by the weight of the periphery of the wheel, augment the action, or carry the blade mechanism up or down to a greater extent than the mere movement of the hand."

The fourth and fifth claims were amended; the tenth, eleventh and twelfth cancelled and two others substituted; and the fifteenth was erased.

The fourth, tenth, eleventh and thirteenth claims of the patent as issued read:

"4. The combination, with a diagonal scraper supported in connection with a wheeled carriage and adapted for upward and downward adjustment independently at either of its ends,

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of an operating-wheel (or wheels) for effecting such adjustment, adapted to act as a momentum or fly-wheel, as set forth, whereby the peripheral weight of said wheel is utilized to assist in the adjustment of the blade, substantially as hereinbefore explained."

"10. In a road-machine, the combination of a scraper-blade adapted for upward and downward adjustment at its respective ends, an operating hand-wheel (or wheels) connected therewith for effecting such adjustment, and a brake (or brakes) acting against said wheel to arrest movement thereof and retain the parts, substantially as set forth.

"11. In a wheel road-scraper, the combination of a scraper-blade adapted for upward and downward adjustment at its respective ends, an operating-wheel (or wheels) connected therewith for effecting such adjustment and adapted for developing peripheral momentum for throwing the blade up or down, and a brake acting against said wheel to arrest the movement thereof and retain the parts in position, substantially as set forth."

"13. In a road-machine, the combination, with an oblique scraper suspended beneath a carriage or body mounted on front and rear wheels, of means for imparting independent upward and downward adjustment at the respective ends of said scraper provided with hand-wheel and pinion devices for imparting movement thereto, and stops or brake devices acting in connection with said hand-wheels for retaining the parts at positions of adjustment, substantially as described."

Thus it appears that the patentee acquiesced in the ruling of the Patent Office that the application of hand-wheels to a road-grading machine, for imparting motion to the devices for raising and depressing the scraper-blade, was old, and, for the purpose of obtaining his patent, restricted his claims in this particular to momentum or balance wheels.

And it is with reference to the momentum feature, treated as an element in all the claims, that the case must be disposed of.

Momentum is the quantity of motion in a moving body, and is proportioned to the quantity of matter multiplied into its velocity.

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All revolving wheels possess momentum, but momentum wheels, so called, as balance or fly-wheels, are wheels whose momentum is utilized in the operation of machinery by a sufficient accumulation of force, through the weight and velocity of the wheel combined, to overcome the effects of temporary loss of power.

The knowledge was common that when a continuous power is applied, but the resistance to be overcome is unequal, a fly or balance-wheel will store some of the power expended during the operation and not needed at one stage, and give it out at another.

This familiar principle is thus expressed in the specification: "The rims of the hand-wheels are made sufficiently heavy to act as a balance against the weight of the blade-lifting devices, so that the momentum of the wheel will greatly assist the operator in the manipulation of the machine."

The momentum wheel of the patent is described in appellant's brief as being "a wheel having such peripheral weight, in relation to the weight of the scraper-blade to be lifted, that it will continue in rotation after the hand of the operator is removed, so as to enable him to secure a new grasp of the wheel to continue the lifting process."

Appellant's expert, Mr. Brevoort, puts it thus: "In the case of the Taft invention, the peripheral momentum was relied upon to continue the blade of a road-scraper in its upward motion so that the operator could again grasp the wheel to give further rotative force thereto without the blades falling and without the necessity of locking the wheel to enable him to get another grip thereon." And the patentee testifies: "The object of making the wheel with the heavy rim was that there might be sufficient momentum generated in the hand-wheel to make a continuous rotary motion of the wheel when it was desired to raise the blade over an obstacle, like a rock or a 'thank-you-ma'am,' or when approaching a cross-walk on a street. This we could not do with levers, if the lever had sufficient leverage to give this operation; and by making the rim of these wheels heavy I secured that ability to cause a continuous motion of the hand-wheel. After giving it one

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impulse from the hand, I could reach forward and give it a second without applying a break or stop to the wheel, thus keeping up a continuous motion of the hand-wheel until I had raised the blade as high as desired."

In short, as the ordinary hand-wheels used for the same or analogous purposes in similar constructions were old, the claim of patentable novelty rests on the proposition that Mr. Taft was the first to increase their weight and apply them as momentum wheels in a common device for regulating road-scrapers to secure the well-known result attendant on the use of such wheels.

Was he the first to do this, and, if so, did such increase of weight involve patentability?

The record contains a number of prior patents of road machines in which the vertical adjustment of the scraper-blade is effected by levers on each side of the machine, with connecting mechanism to each end of the blade, the actuation of either lever raising one end of the blade, and of both, raising the blade as a whole.

The patent of Read of November 25, 1873, shows a reversible scraper-blade adjustable up and down at either end; adjustable laterally in respect of side projection of its blade; susceptible of being raised quickly at either end or as an entirety; carried by a four-wheeled frame; and directly controlled by levers through suspending cords or bars, the rear ends of the levers being adapted to be held by catches or uprights projecting up from the frame of the machine.

The McCall, Watkins and Scott patent of March 9, 1875, has a push-bar reversible scraper, with hand-levers and stops for the vertical adjustment of the scraper-blade and hand-wheels for steering.

The Cook patent of September 22, 1885, has a scraper supported by a wheeled frame and moved by push-bars, and capable of being raised and lowered at either end independently by means of racks connected to the scraper, and pinions, operated by levers, which engage the racks and move them up and down.

These lever machines were all operative, and these and

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other patents were introduced in evidence as showing that wheeled frames; reversible and non-reversible blades; levers of various forms for adjusting either or both ends of the blade; stops for locking the levers in place; stops and various other devices for connecting the levers with the blades; were all well known; but as this is conceded we need spend no time upon them.

It should, however, be observed that broadly considered a hand-wheel and a lever are substantial equivalents in these devices. The wheel is a continuous lever. The rim enables the operator to lay hold at any point desired, and takes the place of a number of levers. But it is denied that momentum hand-wheels are the equivalents of levers.

Other prior patents adduced illustrate the use of hand-wheels, cranks and momentum wheels.

Dyson's patent of June 2, 1868, for a "street scraper" has a triangular frame, D, having slots in which the bars slip up and down freely, to which the scraper-blades are pivoted. The dirt is gathered up within this triangle and deposited by the operation of the rear part of a frame, E. The triangular frame D is raised by a crank-wheel with a crank connected by cords with two wheels in such manner as to revolve both wheels simultaneously, and the whole scraper is thereby raised and retained by the engagement of the crank with a catch. The experts differ as to whether these wheels can be used as hand-wheels if so desired as well as by means of the cords as described in the patent.

The Carey patent of June 16, 1874, for an improvement in scrapers, has a scraper or dirt scoop; a rack attached to a lever which carries the scraper; a pinion engaging the rack to raise and lower the scraper; a crank handle, as an equivalent for a hand-wheel, to turn the pinion, and a lock to hold the devices in their adjusted position.

The Taft machine seems to embrace the connecting devices of this patent, but it has a shaft with a hand-wheel instead of with a crank.

April 10, 1883, Edwards & Durkee obtained a patent for an improvement in grading and ditching machines, in which

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all the adjustments are made by hand-wheels. This has a plough-beam and a carrying apron or belt, and, "by arranging the several hand-wheels, as shown and described," the operator "can raise and lower either end of the plow-beam independent of the other, and raise or lower the apron as required."

The patent of Elmer H. Smith of April 29, 1884, for a ditching machine, shows a plough "consisting of an inclined flat plate," supported by a wheeled frame, and raised and lowered by means of a hand-wheel and pinion acting upon a rack connected to the lever which carries the blade. The blade is operated by a single hand-wheel, in this resembling the fourth, tenth and eleventh claims under consideration, which call for "an operating wheel (or wheels)," although it is testified that "in no case could the adjustments described in the patent be effected by a single wheel."

May 28, 1878, letters patent No. 204,205, for an "improvement in track clearers," were issued to Augustus Day. This was a device "for effectually clearing street railways from snow and ice, so arranged that the snow will not only be cleared away from the face of the rails, but also from between the rails and a suitable distance on each side of the track," it being so spread and packed as not to be left "in ridges or snowbanks along the street."

It has a diagonal scraper suspended beneath a wheel carriage and provided with a lifting mechanism consisting of a chain or rope wound upon the shaft by means of a hand-wheel, there being several hand-wheels for effecting the different adjustments of the scraper-blade, which is raised at either end at the will of the operator.

This concurs with the mechanism thus described in the Taft specification: "In lieu of connecting the hand-wheel and blade-lifting bar or lever by means of a toothed pinion and rack, said parts may be connected by a strap or chain, (one or more,) one end whereof connects with the lift-bar or lever, while the other end is arranged to wind onto the pinion or hub on the hand-wheel, or onto a sheave geared to the hand-wheel hub."

Day's patent of October 21, 1879, No. 220,812, for "snow-

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plows," has a diagonal scraper suspended beneath a wheeled carriage and capable of being raised and lowered by a chain or cord wound upon a shaft turned by a hand-wheel, the shaft having a locking device consisting of a ratchet-wheel and a dog. There is but one hand-wheel which raises and lowers both ends of the scraper together, while the previous Day patent had two hand-wheels and chains for raising and lowering the two ends of the scraper independently. The substance to be dealt with was snow, and rails and their bed, with some distance on each side, the surface to be cleared, but so as not to encumber the circumjacent highway. In view of the work to be done, light hand-wheels might be sufficient, yet if momentum as a positive aid were found necessary, their weight could be increased.

The Boone patent of October 21, 1851, shows a windlass with drums for winding up cords to raise weights, with a wheel and pinion and suitable gearing for turning the drums, and a brake stop.

The Lyon patent of August 6, 1878, for improvement "in combined ship's pump and windlass" has very heavy momentum hand-wheels for operating either pumps or a winding drum. Apparently these wheels are heavier for the same diameter than the Taft hand-wheels.

The Tyler patent of February 14, 1882, for "friction brake for steering wheels" shows a momentum hand-wheel for operating the rudder of a vessel, and a pedal brake for holding the wheel in any desired position. The wheel is not described in the specifications as a momentum wheel, but, as it is such in fact, this is not material.

Appellee's expert Bates testifies that such wheels "are commonly used as momentum wheels and have been as long ago as 1871. The operator gives them an impulse and their momentum carries them on."

It is not controverted that a heavy wheel with a crank pin at the side, such as shown, was a common and very well-known form of construction for the specific purpose of applying momentum to a crank.

The wheels employed in landing ferry-boats and the ancient

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spinning-wheels, instanced by the District Judge, readily recur as illustrations of the use of momentum in the continuance of motion. Indeed, it is admitted that all wheels for raising, winding up and hoisting, if the load is light enough, "are capable of performing some movement after the hand of the operator has left them," and the principle does not depend upon the extent of the aid thus given to propulsion.

We find then that hand-wheels in the regulation of scraper-blades for ditching, grading, street and road clearing were old, and that this was true of the utilization of momentum when required by the exigencies of the case, as in capstan-wheels, crank-shaft wheels, rudder-regulating wheels, pump-operating wheels, and so on. Every one knew that momentum propelled the capstan-wheel, the rudder-wheel, the pump-wheel, the spinning-wheel, after the hand of the operator was withdrawn.

The law of nature was familiarly understood that any moving body tends to continue in motion with a force proportionate to its speed and weight; and it was well known that the function of fly-wheels and balance-wheels was, in the language of Mr. Brevoort, "to absorb energy when the machine is moving at greater speed with the least resistance, and to give it out again when the parts meet with greater resistance."

The Circuit Court was of opinion that the use in road-machines of wheels made heavier in the adjustment of momentum to resistance was not a new use of momentum wheels in working machinery, and that the difference in weight in hand-wheels performing the service of rotary levers was a difference in degree and not in kind. And the contention as to infringement confirms this view.

Mr. Bates describes appellee's machine as "composed of a wheeled frame or carriage, beneath which is suspended a turn-table and to this turn-table the scraper-blade is attached. The turn-table is suspended by rods from the ends of a bar which extends across the machine and is capable of vertical motion between uprights. The bar is supported by being pivoted near each end to the lower end of a rack-bar. The rack-bars are moved up and down by pinions on horizontal

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shafts, the shafts extending back toward the rear of the machine. At their rear ends are bevel gears which mesh with pinions on cross-shafts, and there is a hand-wheel on each cross-shaft to turn it. There is also a band-wheel on each cross-shaft, which is embraced by a friction band or band-brake. The band is connected to a spring-treadle so that the operator can loosen it by putting his foot on the treadle. The hand-wheels are small wheels comparatively, similar to those used on car-brakes, and are certainly much too light to act as fly-wheels or momentum-wheels against such a weight as that of the scraper and turn-table and attachments. Besides this, the strain on this weight is a constant one, always acting in the same direction upon the hand-wheels. The scraper is moved forward by means similar to ordinary plow-beams, which are connected with the turn-table, the turn-table being connected with the front of the machine, or rather to the king bolt by a draft-ring and link. There is no device for acting with a thrust upon the scraper-wheel."

Without subjecting the evidence to critical examination, it is enough that it is admitted that these hand-wheels are smaller and lighter than those of appellant, and that to make out infringement it is requisite to construe the patent in suit as covering all wheels whose momentum can be utilized in operating a roadmaking machine.

On the one hand it is contended that appellee's hand-wheels are not momentum wheels at all and that the continued motion of the blade is due to earth pressure and not to momentum; while, on the other, this is denied, and it is insisted that these wheels are to be treated as momentum wheels because they will store up "a useful amount of energy to make them continue their further movement, when the hand of the operator is taken therefrom," provided "the operator shall give to the wheel a rapid and vigorous pull, moving it while his hand is upon it at a greater speed than it afterwards maintains."

We can hardly doubt that similar manipulation of many of the old wheels would produce the same result, and if there could be infringement if this were not so, there would be anticipation if it were.

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But the decision of the Circuit Court rested on the want of invention, and in that conclusion we concur.

"The whole essence of the Taft invention," says appellant's counsel, is the application of momentum to carry the wheel along "sufficiently to enable the operator to take a new grasp, (as explained by Mr. Brevoort,) without clamping the wheel to prevent its running backward."

Did increasing the weight of the hand-wheels in this class of road machines, in order to correct the tendency of smaller wheels to reverse, involve patentable novelty?

We do not think so. The use of hand-wheels as a substitute for straight levers in this class of machinery was old, and, whether the wheels were light or heavy, (and heavy wheels were old,) they alike performed the service of rotary levers.

The patentee had acquiesced in the rejection of his claim for a road machine with a blade that was elevated or depressed by a hand-wheel operating through suitable gearing, and could not claim the benefit thereof, or of an equivalent construction of the claims allowed. To make the hand-wheels heavier was to increase their capacity, but the same end was accomplished by substantially the same means. The means were old, and their enlargement by a common method to attain a better result in the particular instance merely carried forward the original idea, and was nothing more than would occur to the experienced mechanic.

It appears to us that, it being seen that the tendency to reverse would prove objectionable in the proposed machine, the suggestion that the hand-wheels should be made heavier in order, by greater momentum, to correct that tendency, as it was well known increase in weight coupled with adequate rotative force would, sprang naturally from the expected skill of the maker's calling, and that this use of the heavier wheel did not make the mechanism in any proper sense a new thing evolved by the inventive faculty.

The substitution of the heavier wheel was not the product of a creative mental conception, but merely the result of the exercise "of the ordinary faculties of reasoning upon the materials supplied by a special knowledge, and the facility

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of manipulation which results from its habitual and intelligent practice.”

Decree affirmed.

UNITED STATES *v.* GILLIAT.

APPEAL FROM THE COURT OF CLAIMS.

No. 535. Submitted October 13, 1896. — Decided October 26, 1896.

It was the intention of Congress, by the language used in the act of August 23, 1894, c. 307, 23 Stat. 424, 487, to refer to the Court of Claims simply the ascertainment of the proper person to be paid the sum which it had already acknowledged to be due to the representatives of the original sufferers from the spoliation, and not that the decision which the Court of Claims might arrive at should be the subject of an appeal to this court; and that when such fact had been ascertained by the Court of Claims, upon evidence sufficient to satisfy that court, it was to be certified by the court to the Secretary of the Treasury, and such certificate was to be final and conclusive.

THIS was one of the claims originating in the depredations committed by French cruisers upon the commerce of American citizens prior to the year 1800, commonly called French Spoliation Claims. Pursuant to the provisions of the act of January 20, 1885, c. 25, 23 Stat. 283, the claim mentioned in this proceeding (among many others of a like nature) was presented to the Court of Claims, and that court made an award, advising the payment of the claim, which was reported to Congress, pursuant to the act above mentioned, and Congress, by the act of March 3, 1891, c. 540, § 4, 26 Stat. 862, 897, 900, appropriated money “to pay the findings of the Court of Claims on the following claims for indemnity for spoliations by the French prior to July 31, 1301,” (among others, on page 900,) “on the ship Hannah, Richard Fryer, master, namely, . . . to John A. Brimmer, administrator of John Gilliat, deceased, \$35,840.44.” By the last clause in the act (page 908) Congress added a proviso as a condition to the payment of the awards mentioned